CLINICAL MEDICINE

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Editorial

Col. Victor C. Vaughan

Teacher and Army Sanitarian

VICTOR CLARENCE VAUGHAN was born at Mt. Airy, Randolph County, Missouri, October 27, 1851, the son of John and Adeline (Dameron) Vaughan.

After completing the work in the elementary schools, he attended Mt. Pleasant College, Huntsville, Missouri, from which institution he was graduated in 1872, with the degree of Bachelor of Science.

Thirsting for more knowledge, he went to the University of Michigan, where he received the degrees of M.S. in 1875, Ph. D. in 1876, and M.D. in 1878, and later, received the honorary degree of Sc. D. from the University of Western Pennsylvania, and that of LL. D. from half a dozen institutions of learning. He studied also in the University of Berlin.

He became assistant in the Chemical Laboratory at the University of Michigan in 1875, and in 1876 was appointed Instructor in Physiologic Chemistry.

His progress in the field of medical education was rapid and steady. With Dr. William J. Herdman, he inaugurated the first instruction in practical pathology which was given at the University. He became Assistant Professor of Chemistry in 1880; Professor of Physiologic and Pathologic Chemistry and Associate Professor of Materia Medica and Therapeutics in 1883, and Professor of Hygiene and Physiologic Chemistry in 1887. The Hygienic Laboratory was opened in 1888, and Dr. Vaughan became its first Director.

In 1891 he was made Dean of the Department of Medicine and Surgery of the University—the first graduate of the College to hold that position—and carried the heavy and responsible duties of the office until 1921—a period of thirty years—during which time the University and Medical Department grew to a size and importance scarcely dreamed of in the earlier days.

In 1898 Dr. Vaughan was commissioned a Major and Surgeon of the 33rd Michigan Volunteer Infantry and served in the Santiago Campaign, being appointed Division Surgeon the same year, and recommended by the President for the brevet grade of Lieutenant Colonel, Medical Corps, U.S.A.

When the Spanish War was over, he was made a member of the Commission to investigate the typhoid conditions in the concentration camps in the United States, and we, who were later his students, used to sit in awed admiration of his phenomenal memory while he gave us, in detail, the statis-

tics of the deplorable hygienic conditions which resulted in the death of thousands of our young men in those camps.

When the United States entered the World War, he was commissioned a Colonel, Medical Corps, and was placed in charge of the division of communicable diseases. For his notable services in this post of duty he received the Distinguished Service Medal.

He was a member of the National Academy of Sciences, the American Philosophical Society, the French and Hungarian Societies of Hygiene, and a Knight of the Legion of Honor of France, and was president of the Association of American Physicians and of the American Medical Association.

His contributions to medical literature were considerable. His best known books are a "Text-book of Physiological Chemistry," and his three-volume work on "Epidemiology and Public Health." He gave more than a hundred and fifty articles to the current periodicals, as well as having been Managing Editor of the *Journal of Laboratory and Clinical Medicine* from 1915 to 1923.

He was a teacher of remarkable power, possessing those gifts of copious information, ready speech, and infectious enthusiasm which endeared him to many classes of students who wondered at his immense fund of knowledge; honored and respected him for his power to impart it; and loved him for his wide, human qualities of understanding and helpfulness.

Col. Vaughan was, for many years, up to the time of his passing, November 21, 1929, an international figure in all matters dealing with hygiene, and his work in the Army is now a part of its glorious traditions.

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Sensitiveness to Sulfathiazole

IT seems to be becoming the custom, even among intelligent physicians, to give sulfathiazole, in rather large doses, to practically every patient with tonsillitis, bronchitis, and other relatively mild disorders, and permit him to continue his usual work. It is also being widely used, as an ointment, in the treatment of burns and dermatoses, and as a solution for spraying the interior of the nose.

That this may be a dangerous procedure, is strongly suggested by several recent publications[1,2] and by some personal experience.

A good many persons are hypersensitive to such relatively mild and widely used drugs as aspirin (acetosal) and phenolphthalein, and it seems reasonable that an idiosyncrasy to such powerful remedies as the sulfonamides may be even more common.

It now seems probable that, when sulfathiazole is given, the body may develop antigens, to it, so that, when its administration is repeated, the hypersensitivity may cause fever, dermatitis, and other types of reactions, which may be decidedly serious.

One patient, with a mild, chronic sinusitis, used a sodium-sulfathiazole solution as a nasal spray, and found that it caused such turgescence of the nasal mucosa that the nostrils (previously clear) were completely blocked for several hours, and wisely discontinued the treatment.

Subsequently, when suffering with a moderately severe, but not incapacitating, attack of bronchitis, a physician prescribed sulfathiazole, by mouth, in doses of 1 gram every 4 hours. After three such doses, the patient's nose was completely blocked and he had a moderate fever, with malaise, mild dermatitis, and mental confusion that put him to bed for three days.

There is no doubt that the sulfonamides have worked wonders in the treatment of severe diseases, such as pneumonia, and in many other conditions, but they are not panaceas, and such potent drugs should not be used for self-medication, nor prescribed unless the patient is ill enough to be in bed under the care of a physician.

It would seem a wise precaution, before prescribing therapeutic doses of the sulfonamides (especially if the patient has taken them previously), to give a small *test dose* (⅛ to ½ grain) and watch carefully for symptoms of a reaction.

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1. Lyons & Balberor, in *J.A.M.A.*, Mar. 21, 1942.
2. Cohen, Thomas, & Kalisch, in *J.A.M.A.*, Feb. 6, 1943.

Biodynes

A NEW ointment for the treatment of burns, which, according to the *Scientific American* for January, 1943, produces almost miraculous results in the relief of pain and epithelializing of denuded surfaces, has been developed as a by-product of the cancer researches of Dr. George S. Sperti, of the Institute of St. Thomas, Cincinnati, Ohio.

The active ingredient of this thaumaturgic salve consists of *biodynes*, which are described as recently isolated hormones that control cell growth, especially that or those which promote the proliferation of cells for the healing of wounds of all types, and others that stimulate cell respiration. The former are said to be obtained from injured animal livers and the latter from yeast cells.

Biodyne ointment now appears to be available only to those who have the facilities for carrying on extensive and carefully controlled clinical research, but it seems to be one of the new developments that deserves careful and open-minded watching, as it may well prove to have possibilities that are not presently apparent.

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Genius begins great works; labor finishes them.—JOUBERT.

◆

Units or Milligrams?

There are, of course, several drugs, and especially biologic products, whose potency can be standardized only on animals. All hormone products and vitamins were in that class a few years ago, but, today, a good many of them have graduated from it, because the active principles involved have been isolated and synthesized and can now be given in doses as exact as those of morphine and strychnine.

Another matter to be considered is that many substances do not act the same upon ailing human beings as they do upon healthy rats, mice, or rabbits; that the conditions and purposes of biologic standardization and clinical application are often radically different (especially with hormones and vitamins); and that various researchers have a tendency to adopt their own pet standards of "units," so that an outline of dosage in one set of units is almost unintelligible to a man who has worked with another set.

This is not a thesis for the administration of single, synthetic hormones or vitamins, in preference to natural extracts of whole glands, plants, or other raw materials (which, of course, *must* be biologically standardized and labeled in units of activity). That subject still needs a lot of clinical digestion before we will know the final answer. But it is a suggestion that manufacturers of single, synthetic hormones (the estrogens and androgens, for instance) or vitamins adopt the practice of stating the optimum doses in *milligrams*, rather than in "units" of one sort or another; and that those who supply whole, natural extracts get together and adopt *one* system of "units," so that all of us will know what the other fellow is talking about.

This happy result will come to pass only when a sufficient number of physicians on the clinical firing-line rise up on their hind legs and *demand* it.

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The world desires to know what a man can do, not what he knows.—BOOKER T. WASHINGTON

DR. LAKE PASSES

The birth and death dates of great men are simply stated . . . George B. Lake, M.D., November 26, 1880—March 2, 1943. These are figures for the record of time, but the records of remembrance, personal and public achievement, are timeless.

His physical loss will be great and keenly felt, not only by myself, but by his many personal friends, and subscribers.

It is my intent to perpetuate his ideals and purposes in the field of medical advancement and professional helpfulness as edited and published in CLINICAL MEDICINE.

At present, no concrete form for continuance has been arrived at, and I feel that I may call upon you for suggestions in this regard.

Your assistance and understanding, I assure you, will be greatly appreciated in the next few months to come.

G. B. L., Jr.

LEADING ARTICLES

Staphylectomy for the Relief of "Colds" and Sinusitis

By ARTHUR E. EWENS, M.D., *Atlantic City, N. J.*

Colds and sinus infections are so common and cause so much distress and loss of valuable time, that any suggestion that bids fair to lessen these disorders is of acute and general interest. Dr. Ewens seems to offer a solution of this problem that can be satisfactorily applied by general clinicians.

ASIDE from a recognized *(mechanical)* culpability in certain characteristic types of aggravated coughing and habitual clearing of the throat, the seemingly innocuous uvula has never been suspected of any distinctly pathogenic role. On the contrary, it is a traditional belief that an important, though somewhat vague, utility resides in this revered structure, which is quite commonly referred to as *"the palate"* and as religiously conserved as though this were its proper designation.

However, by an entirely original clinical investigation, reported in the August, 1942, issue of *The Eye, Ear, Nose, and Throat Monthly*, I found that this appendage is a mere vestigium (analogous to the vermiform appendix) and a menacing bacterial nidus, the *complete* removal of which (See Fig. 1) is attended by unparalleled anticatarrhal effects that may well revolutionize the prevailing concepts of nose and throat patholyses.*

Omitting, for the sake of brevity, a recital of the circumstances leading up to my extensive experimentation with staphylectomy, the photographic reproductions of half a gross of dried uvulas that accompanied my report, and a detailed analysis of the presumable evolutionary changes in man's throat, based upon comparative anatomy and the greatly altered functional needs of civilized man, this brief paper will be confined to a few illustrative case histories and consideration of the technic of staphylectomy.

*Dr. Ewens will be glad to send illustrated reprints of his more extensive article to any of our readers who request them.—Ed.

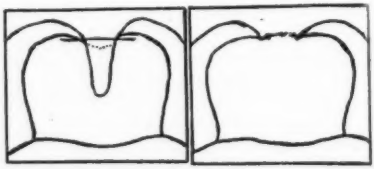

Fig. 1: Diagrams showing (left) the levels at which the uvula is grasped and severed; (right) the contour of the faucial arch after staphylectomy (no stump should remain).

Complete abscission of the uvula, in a series of more than 3000 cases, has definitely revealed and verified the following remedial effects of this procedure:

1. Freer nasal ventilation, almost without exception, within the first 72 hours following the operation.
2. Diminished nasal secretion and "post-nasal drip," and cessation of early morning paroxysms of "hawking."
3. Unquestionable reduction in susceptibility to "colds."
4. Prompt symptomatic relief from painful sinus involvement (maxillary and frontal), truly dramatic in a majority of instances.

Case Reports

From an impressive array of case records, ten have been selected as being typical of the various conditions present and the results of the operation. The year of the operation is inclosed in parenthases.

L.R.W., aged 29 (1936), complained of chronic hypertrophic rhinitis and nasopharyngitis; frequent protracted "colds," with acute sinus involvement, since childhood; and recent loss of weight (from 137 to 125 pounds).

Two days following staphylectomy,

this patient stated that he could breathe through both nostrils "as never before," due to observably diminished turgescence of the posterior nares. Within 3 weeks there was decided abatement of all catarrhal manifestations and an initial gain of 4 pounds (ultimate weight, 142 pounds).

During 3 years' observation, susceptibility to "colds" was almost nil, and there was no recurrence of acute sinusitis.

M.H., age 25 (1934), was "Never without a cold"; sneezed "15 or 20 times a day"; and required an "unlimited supply of handkerchiefs." Early morning sessions of hawking sometimes induced vomiting.

All of these difficulties subsided even before the staphylectomy wound had entirely healed, and during the past 7 years this patient has seldom experienced any respiratory annoyance that could properly be designated as a "cold."

M.D., age 51 (1932), had chronic rhinitis; frontal and maxillary sinusitis; and long-continued, profuse rhinorrhea, suspected of being an allergic manifestation.

Removal of an exceptionally small uvula proved so decidedly efficacious that the patient's laundress subsequently asked if she was washing her handkerchiefs at home.

A.G.T., age 32 (1933), had had frontal and maxillary sinusitis throughout life and "a cold almost perpetually." All manner of treatment had proved futile, and recurrent seizures could be controlled only by the constringent action of cocaine, though the patient had resorted to snuff, at times, with a fair degree of success. Increasing pain became almost unbearable towards the close of each day.

There was *immediate* cessation of discomfort following staphylectomy, absolutely no recurrence of pain to date, and "practically no colds" during 8 consecutive years. (A physician who formerly treated this patient characterizes these undisputed results as *"mere coincidence"*).

D.W., age 37 (1935), reported frontal sinusitis, so intensely painful that she had had "no sleep for two weeks" and only transitory relief from treatment at the hands of a specialist, which she characterized as "worse than the disease."

Upon removal of the uvula, subjective manifestations of sinus involvement ceased within 48 hours, and have not reappeared during a lapse of 6½ years. Mucosal changes, both nasal and pharyngeal, render this symptomatic response quite comprehensible.

W.V.C., age 63 (1940), suffered from troublesome chronic pharyngitis of many years' standing, with incessant "tickling in the throat" and exhausting paroxysms of coughing that made complete recumbency and requisite sleep impracticable.

Staphylectomy not only allayed the distressing fits of coughing, thus affording restful nights, but markedly reduced the angry pharyngeal hyperemia and structural relaxation, so characteristic of chronic catarrhal throats. General physical improvement has been progressive to date, notwithstanding an intercurrent pneumonia.

Mrs. W.E.C., age 37 (1939), gave a history of frequent "choking" sensation, especially while eating and when recumbent, saying, "I can't lie flat and must always use two or three pillows at night."

Removal of the uvula afforded complete relief, and there has since been no interference with full recumbency. (In this case the uvula was associated with no catarrhal symptoms, nor was there any unusual susceptibility to "colds").

C.C., age 42 (1937), complained of chronic follicular pharyngitis and a highly exaggerated gag reflex that, for 8 years, had made the wearing of an upper denture practically impossible. Several dentists had made futile attempts to circumvent this difficulty. In addition to reflex nausea, there was continuous clearing of the throat and an annoying impulse to "swallow all the time."

The dimensions of this man's uvula seemed to explain his outstanding difficulties in advance of staphylectomy, and this was abundantly confirmed by what subsequently transpired. All of his symptoms vanished with amazing promptness, and his upper plate no longer occasions any inconvenience whatsoever.

W.V.M., age 89 (1941), had a chronic, "boggy" pharyngitis and made futile attempts to "dislodge something from the throat," day and night. The absence of restful sleep for several weeks made relief imperative.

Having undergone *staphylotomy* in his youth, the remnant of his uvula was not an obvious source of disturbance, but its *radical* removal nevertheless solved the problem. To quote the patient, he "slept soundly" and had "no cough whatever and very little mucus" eight days following staphylectomy, and insisted that further treatment was superfluous.

M.H.M., age 48 (1938), complained of subacute pharyngitis and tracheitis, with exhausting and intractable seizures of unproductive coughing, aggravated by recumbency. Tracheal involvement proved to be a result, rather than a contributory cause, of ceaseless coughing, as the prompt effects of staphylectomy clearly revealed.

There was abrupt disappearance of fitful coughing and an 8-pound gain in

weight within the succeeding six weeks. Visible catarrhal manifestations were markedly reduced, and a favorable change in the quality of the patient's speaking voice has since been a subject of general comment.

These examples of the symptomatic response to staphylectomy afford only a scant index of the potential serviceability of the procedure. Furthermore, many decidedly helpful and far-reaching effects, both subjective and objective, are attainable by no other presently known means.

Technic

This operation is one of extreme simplicity, performed under local anesthesia and requiring neither exceptional skill nor special facilities. It is an *office procedure* that is rendered practically painless by the topical use of 4-percent cocaine solution, or any other effective surface anesthetic, adequately applied. In my own practice, a 4-percent aqueous solution of Butyn is employed, with highly satisfactory results.

As shown by the accompanying photograph (Fig. 2), the only instruments required are a suitable tongue depressor, medium-sized Noyes' alligator-jaw forceps, and a pair of tonsil-scissors, preferably with serrated edges, though the latter specification is relatively unimportant.

Manipulation of the tongue-depressor is delegated to the patient, thus enabling the operator to handle freely the other two instruments employed.

Because of the markedly impoverished vascularity of the uvula, postoperative bleeding is negligible, and usually subsides spontaneously within five minutes. In some cases there is practically no bleeding at all. In no instance, as yet, have hemostatic measures become necessary, or even debatable, which indicates conclusively that such a contingency is only a remote possibility. Painful deglutition seldom persists more than four days, and the process of healing is usually complete at the expiration of two weeks.

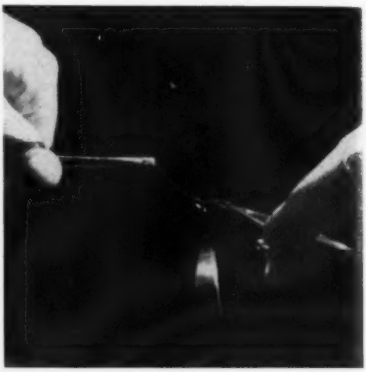

Fig. 2: Manipulation and relative position of instruments in the technic of staphylectomy.

The only requisite to success is that the uvula be removed *in toto*. Any compromise between staphylectomy and staphylotomy, though not entirely ineffective, will fall far short of the remedial potentialities of the former procedure, properly executed.

3600 Pacific Ave.

Gold in Rheumatoid Arthritis

The patient with active, inflammatory rheumatoid arthritis may be benefited by intramuscular injections of gold preparations. Such treatments have no effect on patients with osteoarthritis (the "wearing out" or noninflammatory type) or the burned-out rheumatoid arthritic cripple. Inflammation is arrested or lessened.

Colloidal preparations are of little value, because the colloidal particles are quickly phagocytized and rendered ineffective. Soluble crystalline salts, such as *myochrysine* and *gold-sodium thiosulfate*, are readily absorbed.

Dosage: It is desirable to use as small an amount of the gold as is therapeutically effective, because gold is retained in the blood and tissues for months and toxic reactions may appear later. Myochrysine is most effective in 50 mg. doses given once weekly, until from 700 to 1,000 mg. have been given. Gold-sodium thiosulphate is given in doses of not more than 65 mg. once weekly. Solganol-B oleosum, a suspension of a soluble gold salt in oil, should be given in 75 mg. doses once weekly. All medication is given by intramuscular injection, as intravenous injection produces no better results. — R. H. Freyberg, M.D., in *Proc. Staff Meet. Mayo Clin.*, Oct. 21, 1942.

The Sulfonamides: A Survey*

Sulfonamides in Meningitis

When a spinal tap is performed on a child, and reveals a fluid which suggests meningitis, valuable time may be lost until the causative organism is identified. Sulfadiazine is given, in doses of 1½ to 3½ gr. (0.1 to 0.2 Gm.) per pound of body weight, every 24 hours. This dose is reduced as the patient improves, and is discontinued 48 hours after the fever is gone or the spinal fluid is sterile and the cell count satisfactory.

This procedure is used in cases of cerebrospinal meningitis and purulent (secondary) meningitis. In influenzal infections, sulfadiazine, with B type horse serum or beta rabbit serum, is used. In streptococcic cases, either sulfadiazine or sulfanilamide may be used (sulfanilamide therapy results in a lower concentration in the spinal fluid). In pneumococcic cases, sulfapyridine or sulfadiazine is indicated, with the occasional help of a specific serum.

Promin has been used in tuberculous meningitis, and is worth trying in cases with such a desperate prognosis.

—H. S. STERN, M.D.

Sulfonamides in Upper Respiratory Infections

The sulfonamides should *not* be used in treatment of the ordinary upper respiratory infections (colds, mild sore throats, sinusitis), because (1) the patient may become sensitive to the sulfonamides and thus be unable to take them if a complication, such as otitis media, develops; (2) laboratory tests for toxic effects on the kidneys and other organs are difficult to obtain in the home; and (3) these drugs are *dangerous* and should not be given to patients with mild, self-limiting diseases.—C. H. BEACH, M.D.

Sulfonamides in Gonorrhea

If the patient with gonorrhea does not improve, do not keep switching from one of the sulfonamides to another. This patient probably has a sulfonamide-resistant infection, and may have prostatitis or some other complication. The drug should be discontinued and prostatic massages begun, with other local treatment as indicated.

Single-dose therapy: From 5 to 7 Gm. of sulfathiazole, given in one dose, will cure many patients with acute, untreated gonorrhea.—T. B. WASHINGTON, M.D.

Sulfonamides in Ear Infections

Sulfonamide therapy of ear infections is most effective when given early; it is of little benefit once mastoiditis has developed. Sulfadiazine is the drug of choice, and should be used, in adequate doses, until the blood level is from 10 to 20 percent (4 Gm. as the initial dose, followed by 1 Gm. every four hours).

Good results are obtained by treating cellulitis or eryspielas and external otitis with sulfadiazine. The chronic draining ear is resistant to sulfonamides, since bone infections are but little influenced by these drugs.

—P. A. N. PASTORE, M.D.

Sulfonamides in Chronic Urinary Infections

For practical purposes, sulfacetmide (Sulamyd — Schering) is effective against those organisms found in an acid urine (colon group of bacteria). When the urine is alkaline, the organisms are apt to be staphylococci or proteus bacilli, and sulfathiazole is the drug of choice, the dose being from 30 to 35 grains (2.0 to 2.3 Gm.) daily.

—A. I. DODSON, M.D.

Sulfasuxidine Colonic Therapy

One gram of sulfasuxidine may be given every four hours for many days, with no ill results. The bacterial count in a gram of fecal matter has been reduced from 10,000,000 to 100, after several days of such oral therapy.

—T. H. DANIEL, M.D., Charlottesville, Va.

[Sulfasuxidine has been dramatically effective in the preoperative preparation of patients for colonic surgery. The many uses of such a powerful colonic antiseptic in medical conditions have apparently been forgotten.—ED.]

Sulfonamide Ointments

A large percentage of dermatologic patients have irritations which are secondarily infected. The ideal antiseptic is one which causes no irritation; all of the older antiseptics are irritants and add to the dermatitis. The local use of sulfonamides has been proved efficient and non-irritating. Either a grease base or a special, disappearing base may be used. Sulfathiazole in a 5-percent ointment is an effective strength.—T. W. MURRELL, M.D.

*All of the following comments appeared in the *Virginia Medical Monthly* for January, 1943, and all the authors live in Richmond, Va., except as otherwise noted.

Sensitiveness to Sulfathiazole

We believe that the topical application of sulfathiazole, as an ointment, can cause hypersensitivity resembling an allergic phenomenon, which will cause severe reactions following the continued use of the drug, locally or by mouth.

We feel that sulfathiazole is too dangerous a drug for indiscriminate use in mild ailments, and that its intermittent use may cause dangerous reactions.

Patients who have formerly taken this drug should be tested, by giving a minute dose (1/8 grain—8 mg.) by mouth, before being given therapeutic doses.—MILTON H. COHEN, M.D., *et al.*, in *J.A.M.A.*, Feb. 6, 1943.

Sulfonamides in Severe Asthma

The sulfonamides are of no value in the ordinary case of severe, recurrent asthma. In status asthmaticus, where it is often a question of life and death, and especially where the condition is accompanied by fever and the sputum shows a coccic infection, sulfadiazine, sulfathiazole, or sulfanilamide may well be used, 4 Gm. being the initial dose, followed by 1 Gm. every four hours. —WARREN VAUGHAN, M.D.

Sulfonamides in Sinusitis

The sulfonamides have no effect on mild sinusitis or recurrent, chronic sinus infection. They may be beneficial in acute fulminating sinusitis (2 Gm., followed by 0.5 Gm. every four hours). —E. T. GATEWOOD, M.D.

Sulfonamides in Malaria, Rickettsioses, and Brucellosis

The sulfonamides are of no value in the treatment of typhoid fever, malaria, Rocky Mountain spotted fever, and typhus fever. Sulfapyridine is somewhat effective in undulant (Malta) fever.—H. WALKER, M.D.

Sulfanilamide in Burns

A simple, effective treatment for burns is the application of 6-percent sulfanilamide ointment in a fatty base. It does not require skilled personnel, is inexpensive, and is easily adapted for treatment of large numbers of burned patients. Contractures are not seen if physical therapy (active and passive movements; gentle heat treatments) is given early.—E. I. EVANS, M.D.

Sulfonamides in Acute Osteomyelitis

All acute bone infections, particularly acute osteomyelitis, are treated by medical measures, as far as is practicable. Sulfanilamide is used where there is evidence of streptococcic infection and sulfathiazole where the staphylococcus is found, using 4 or 5 Gm. as the initial dose, and 1 or 1.5 Gm. every four hours thereafter.—J. H. TUCKER, M.D.

Kidney Damage Due to Sulfonamides

The appearance in the urine of crystals of the acetylated forms of the sulfonamides is a sign of potential kidney damage. *The appearance of gross or microscopic hematuria is an indication for immediate discontinuance of the drug.* Abdominal crampy pains or renal colic is a sign that the upper urinary tract is obstructed by crystals. Oliguria and anuria are other signs of such obstruction. Both conditions should be treated by irrigation of the ureters through ureteral catheters and the intravenous administration of fluids.—F. N. POLE, M.D.

Mental Symptoms Caused by the Sulfonamides

Sulfonamide therapy may be followed by mental symptoms, including confusion, delirium, changed moods, negativistic attitudes, delusions, hallucinations, persecutory trends, and other types of mental aberrations. The ambulatory patient may be so impaired in judgment as to jeopardize his own and other persons' lives; he should not be permitted to drive a car or truck, fly an airplane, or sign important documents. The drug must be discontinued at once on the appearance of mental symptoms.—O. B. DARDEN, M.D.

Sulamyd in Gonorrhea

In a series of 100 men with gonorrhea, treated with sulfacetimide (Sulamyd-Schering), 86 showed negative smears after 2 days of treatment, and 91 were cured after full treatment. This drug was better tolerated than any of the other sulfonamides.—DR. MARINKOVITCH, in *Lancet*, (Lond.), Feb. 1, 1941.

Sulfadiazine in Gonorrhea

Sulfadiazine is slightly more effective in gonorrhea than is sulfathiazole, but it should not be given until after blood and urine studies have been made.

The first dose should be 3 Gm., followed by 1 Gm. after each meal and at bedtime. The patient should be instructed to *drink plenty of water* and to return every few days for tests of the blood and urine. If fever, conjunctivitis, a rash, or pain in the back should develop, he should *stop the medicine at once* and report to the physician.

Of 100 patients who received a full

course of this treatment, 20 developed moderate toxic reactions (none serious), and 95 were completely cured. — R. W. SATTERTHWAITE, M.D., *et al.*, in *Ven. Dis. Information*, July, 1942.

Sulfadiazine and the Kidneys

Sulfadiazine should not be administered without a careful daily check of the urinary output (which should be at least 1,500 cc.) and sediment, as it is likely to cause oliguria or anuria; and the dose should never be more than 4 Gm. a day, and even that much may deposit crystals in the urinary tract unless the patient takes plenty of liquids.

If urinary symptoms develop, stop the drug at once; force fluids; and, if oliguria (below 500 cc. daily) persists or anuria is present, catheterize the ureters and irrigate the kidneys with warm, 2½ percent sodium bicarbonate or physiologic salt solution.—DRS. WM. ADAMS and J. K. CRAWFORD, in *South. Surg.*, May 11, 1942.

Sulfonamides in Otitis Media

In acute or chronic suppurative otitis media *with a perforation* (so that the drug can enter the tympanum), sulfathiazole should be used if the discharge shows staphylococci, or sulfanilamide if streptococci predominate.

After thoroughly cleaning the external canal, so that the perforation is visible, the drug, as a moderately fine powder (40 to 100 mesh), not necessarily sterilized, is insufflated into the middle ear with a Lederman hard-rubber insufflator. This should be repeated as indicated by the amount and character of the discharge, and continued until the discharge ceases. No toxic reactions have appeared, and this method does not interfere with giving the drug by mouth, if this seems advisable.—DRS. E. S. CONNELL and B. C. TROWBRIDGE, in *Archiv. Otolaryngol.*, May, 1942.

Sulfaguanidine in Bacillary Dysentery

Sulfaguanidine is fairly soluble in water and therapeutically active, but poorly absorbed from the intestine, which makes it particularly useful, given by mouth, in bacillary dysentery of the Flexner, Shiga, Schmitz, and Sonne types and a few other bowel disorders, but not many.

The initial dose is 50 mg. per Kg. of body weight (for adults, give 3.5 or 4.0 Gm.), and is repeated every 4 hours until the stools are reduced to 5 or less a day; then give the same dose every 8 hours for at least 3 days.

This drug is relatively nontoxic, and when it is given, the patients feel better within from 24 to 48 hours; pain and tenesmus cease; the temperature and pulse rate fall; and the number of stools, as well as the blood and mucus in them, are rapidly reduced.—E. K. MARSHALL, Jr., M.D., in *Miss. Doctor*, June 20, 1942.

Sulfonamides in Pneumonia

After the diagnosis of pneumonia is made, one should proceed as follows: (1) Collect all the specimens for laboratory examination (especially the sputum); and (2) give 4 Gm. of sulfadiazine immediately and follow with 1 Gm. every four hours until the temperature has been normal for 72 hours or the bacteriologic study has indicated that a different sulfonamide will be more effective.

Drug	*Effective against infections with*
Sulfadiazine	Streptococcus hemolyticus, Pneumococcus, Staphylococcus aureus, Friedlander's bacillus type A.
Sulfathiazole Sulfapyridine	Staphylococcus aureus, Streptococcus hemolyticus, Pneumococcus, Friedlander's bacillus type B.

Sulfadiazine is the least toxic, and is preferred unless it proves ineffective. If no improvement follows sulfonamide therapy in 48 hours, consider discontinuing the drug. If the drug proves too toxic, change to a specific antiserum. Give antiserum in addition to the drug when the patient is pregnant, when more than one lobe is involved, when the patient is over 50 years of age, when the disease is first seen after the third day, and when bacteremia fails to respond in 36 hours.

Success in sulfonamide therapy depends on an awareness of what may go wrong. Poor absorption and rapid elimination may result in low blood and tissue levels of the drug. Fever, vomiting, skin rashes, mental symptoms, anuria, hematuria, anemia, and neutropneia may indicate toxicity. The causative bacteria may not be affected by any sulfonamide. — W. B. BLANTON, M.D.

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While I am a new subscriber to CLINICAL MEDICINE, I have been well repaid for my subscription by reading my first copy. W.G.De A., R.N., Tex.

Time and the Patient

(Psychic Disorders and the Family Doctor)

By J. G. N. CUSHING, M.D., *and* MARY McKINNISS CUSHING, M.D.,
Towson, Md.

The family physician has a clear and vital responsibility in the care of early cases of psychic disease, which the Drs. Cushing explain, with suggestions for discharging it adequately.

"That doctor only wanted to know about diseases and symptoms that were down in books. He was such a careful fellow that I was afraid that I would upset him — he does just the right things at the right time. Some of the others only wanted neurological symptoms and couldn't understand that I felt there was something emotionally wrong with me."

THE opening words are taken, verbatim, from a conversation with a recent psychiatric patient. This person is subject to marked mood swings (cyclothymic personality), which have become more and more noticeable over a period of years. She reacts with emphatic elation or equally emphatic depression to situational factors which would cause the average personality to show only mild mood fluctuations. This patient entered a psychiatric hospital of her own volition, because of her fear of either committing suicide during a depression or of causing her family irrevocable social harm during the elated periods. By a regimen of regular conferences with her physician, she kept her mood swings under fairly good control and was able to discuss and work out the problems which, of recent years, had caused such personal insecurity that she had been unable to keep her emotional lability within the bounds that are considered consistent with good health.

We feel that if this patient had found the opportunity to air her emotional difficulties in the presence of a sympathetic, understanding, *and time-giving* physician, the necessity for hospitalization would have been avoided and she might have been spared much of her mental anguish. She is an extremely intelligent person, who had been a resourceful mother and business woman. She knew what she wanted, but was unable to find anyone who was sufficiently understanding of her needs, until she became a patient in a mental institution.

Before the present age of super-specialization in the medical fields, the general practitioner was the one to whom the whole family would turn, each with his or her particular problem. No matter how busy he seemed to be, there was always time to listen to Arabella's difficulties when her true love turned a bit sour, or to Mrs. Jones' tale of marital woe at the time of her menopause. It was not that the general practitioner was highly trained as a psychiatrist — perhaps he had never even heard the word — but he did have the essential ingredients that go to make a good physician. He knew his essential drugs and physics, and he treated infections without an impressive array of *"sulfa drugs."* Perhaps he did not know the difference between a Vanden Bergh and an Icteric Index, and perhaps he did not even treat his patients in the light of all the scientific knowledge that was available at that time. BUT, the successful family physician of that era was sympathetic, he was understanding of human foibles, he could apply common horse sense in handling the problems of interpersonal relationships, and above all, he *took the time* to listen to his patients.

That a sympathetic and understanding personality is necessary to the physician, no matter what his specialty, is almost an axiom among the faculties of medical schools that turn out good physicians. There is a noticeable attempt in these schools to weed out men, in the first two years, whose personalities are not adaptable to medicine. It is a much more difficult problem to weed out the men who do not use good common sense — or, shall we say, good judgment — in evaluating the personal relationships of others. Our schools are geared to make use of the latest products of scientific research. The effort to cram into four years of study the basic knowledge of the medical sciences, as well as the latest diagnostic and therapeutic methodology, presents a grave problem. The student frequently becomes so lost in the maze of scientific facts that he cannot see his patient without the aid of a microscope, and sometimes loses sight of him altogether. The patient, in such instance, becomes merely the carrier of an interesting detective problem which

the physician sets himself to solve. If he presents anything further than the objective findings or the subjective symptoms of an interesting tangible illness, he becomes, to the physician, a marplot who, by his officious interference, disturbs the serenity of that orderly doctor's life.

Fortunately for humanity at large, and for the medical profession in particular, laboratory diagnostics and chemotherapy help the greater number of those physical ills to which they are applied. However, every physical ill has a concomitant emotional change or affect, and it is the wise man who panders to his patients sufficiently to recognize these human frailties, so that he may comfort his patients spiritually, as well as physically. This is not an argument for the return of the medical profession to the fold of the priesthood, but rather for the medical practitioner to recognize his patients as fellow human beings.

The general practitioner does not need to be especially trained in psychiatry in order that he may recognize the problems of his patients' interpersonal relationships. He does not have to be a psychiatrist in order to recognize the difficulties that may arise when a newly-married couple is living with one set of in-laws. He must recognize, however, that, as every physical ill gives rise to some emotional change, so does an emotional disturbance cause a change in the physical metabolism. There is many a patient who is dismissed from the physician's mind, if not from his office, because he or she does not show any demonstrable organic change. They are often considered boring, complaining, and time-consuming, and are labelled contemptuously, "neurotic" or "hypochondriac." One would hesitate to say how often such a patient has arrived at a psychiatrist's office or in a mental hospital, of his own volition, with the plaintive cry, "My doctor won't take time to listen to me." Such patients become deeply resentful of the attitude of their physicians.

The Family Doctor's Part

The common variety of emotional disorder and the milder psychoneurotic states can, and should, be well handled by the family physician. An acceptable routine for such patients would be to start with a very thorough physical examination, if somatic complaints are presented; but the physician should convince himself beyond the shadow of a doubt at that initial examination that there are no organic bases for the complaints. If he is so convinced, he must also convince the patient of these facts by *not again indulging in examinations*, unless new evidence is brought forth which would warrant such a procedure. Needless to say, any physical discrepancies found should be treated for what they are worth.

After the physical examination and any needed laboratory studies have given the physician sufficient proof that his patient's complaints are not based on demonstrable organic pathology, these facts should be presented to the patient. If he is of the reticent sort (and psychoneurotics usually are *not*), the physician can bring out his story by asking leading questions concerning his family life, his environment, or his work. Usually a few well-pointed questions will start the patient talking, but only if he is sure that his doctor is going to *listen his story out* with a modicum of patience and attention.

This sort of procedure requires more than one visit, and may go on for several weeks. One will find that such patients need not be a burden, if the time allotted to them is strictly stated and limited. Make *regular appointments* with the patient for a certain period of time — twenty minutes, forty minutes, —or whatever can be spared without slighting the rest of one's practice — but be sure to give the patient the *full amount of time promised him*. Regular appointments, in this way, will sometimes obviate running to the patient's home for the treatment of anxiety attacks and so forth. It will also keep the patient from waylaying you at odd and time-consuming intervals, to discuss anything new coming up, which seems to him to have affected his problem. These things, the patient finds, will usually keep until the regular appointment.

Occasionally one finds that patients will break appointments, because they do not feel like talking that day. In these instances, it may be good practice to *charge the patient a fee* for the broken appointment, unless sufficient warning has been given. Many patients suffer from the delusion that they are helped only by those things for which they pay.

Of course the physician cannot just sit and expect the patient to talk on and on, thus carrying the whole burden for his treatment. He will present questions and problems which the objective mind of the physician may be able to answer, to his satisfaction, immediately. However, the physician must present these solutions or answers in a tactful and understanding manner, with careful explanations

which will be acceptable to the patient. No fancy theories of "Oedipean complexes" or "penis envy" need be indulged. Rather, there should be the ability to pick out the essentials of the patient's story and apply to their solution good judgment and a fine feeling for the fitness of things in practical living. In this manner the physician can give to his patient a security which he has not been able to find by his own muddling through, and acts as a crutch to the emotionally crippled mind. Eventually the objective judgment of the physician holds sway over the patient, who will no longer need the support which typified the beginnings of his treatment.

The physician should not expect his solutions to be accepted the first time they are presented, nor simply because they seem sound to him. They must be presented with *explanations* and *logical reasoning* which are acceptable to the patient. *These procedures require time and patience.*

Every patient who comes to his family physician with emotional problems will not, of course, be a psychoneurotic. Some of those problems will be simple misunderstanding, on the patient's part, of his relationships with those about him, and on their solution, nothing further will be demanded of the physician. The solution of other difficulties in interpersonal relationships may prevent the precipitation of a real crisis in a cyclothymic personality, and occasionally may put off the evil day of a full-blown psychosis in a schizoid personality. The family physician owes it to himself, as well as to his patient to recognize when the problems are getting too complex for his handling. This is the point when the general practitioner should turn over his responsibilities in the case to someone who has been more thoroughly trained in the intricacies of psychiatric problems. The ability to recognize these difficulties may prevent a long illness for his patient.

The argument, then, as we should like to put it to the family physician, is as follows: First of all, recognize that emotional and physical factors are intricately interrelated; second, take care of all the physical factors, as one ordinarily would; third, have patience to ferret out the difficulties in interpersonal relationships which the patient may have, and then take the time to listen out his story with attention and sympathy; fourth, give the patient the benefit of your good judgment with full explanations as to the reasons behind your argument; and last, if you feel that you are getting out of your depth, turn your responsibilities over to a psychiatrist.

Seminal Emissions*

Involuntary discharges of semen during sleep, with erotic dreams and erection, may recur so frequently as to make the affected person physically and mentally ill. The usual treatment of medicating the seminal vesicles and adjacent structures is wrong.

Young vigorous men, who are thrilled by the mere companionship of a woman, are often bothered by seminal emissions, and will exhibit physiologic depletion much more often than those with less of the virile spark. Middle-aged bachelors are less inclined to emissions. Pollutions which occur once every week or two are compatible with a stable nervous and sexual system.

Such emissions are normal, if the individual is buoyant and refreshed after their occurrence. They are the effects of continence. Psychic emissions, either in the married or single man, usually are the effects of psychic stimuli which lie concealed in the unconscious.

Inform the patient, in all sincerity, that he is not suffering from sexual debility. Many of these disturbing conditions are the effects of apprehension concerning loss of semen. Tell the patient that semen losses do not damage the nervous system.

The man must be made to realize that, when the watchmen of the body are given a rest during sleep, the mind can play in an abandoned manner. If the sleeping period is the only interval in which the patient can enjoy unrestricted play, then it is the physician's function to train the patient to alter his work and recreation so that he will not take all his pleasure in thinking when asleep.

Diet is of importance in some cases. If the bedtime meal is forbidden, emissions may stop.

Too-busy married men should have more time for rest and relaxation. Though they enjoy sexual relations with their wives, they do not get psychic relief, because intercourse comes at the end of a busy day, when they are mentally tired. During sleep, when more perfect peace of mind and body is to be had, sexual mechanisms function in an unconstrained manner.

E. W. Hirsch, M.D.

Chicago, Ill.

*South. Med. and Surg., July, 1942.

Pictures for Medical Articles

By GEORGE B. LAKE, M.D., *Waukegan, Ill.*

THIS is the day of pictures (perhaps too much so), and there is no doubt that pictures can be of great value for education, as well as instruments of propaganda. So CLINICAL MEDICINE is becoming, definitely, a "picture magazine," and we want to make it more so.

When you prepare an article, long or short, or even a *Seminar* problem or solution, *think* whether there is any way to *illustrate* it (photograph, line drawing, graph, table, or whatever) to make it *clearer* to those who read it. *Study* the articles you read, to obtain suggestions and ideas for possible illustrations, and consider how to make them in a way that will be the most instructive.

Here are a few points that may be helpful in deciding what type of picture will be best for your purpose, and how to make it.

Charts and Graphs

The making of a chart or graph may seem so simple as to require no comment, but that is a mistaken idea, as you would soon realize if you could see some of the things that are sent to medical editors, *before* they have been edited.

Fewer charts and other graphs should be made on *graph paper* with *black* lines, as red and blue do not reproduce well in a cut. If you cannot get that kind readily, you can *make it yourself* by using a little time, patience, and accuracy; or you can *retrace* the red or blue lines *needed for your purpose* (some kinds of graph paper have more lines than are required in making a simple graph) with black *India* ink ("drawing ink").

A fairly heavy, square-cornered, black line should be made just outside of the graph, on all sides to serve as a *border*. All *index letters* (capitals are best) and figures should be made *large* enough and *clear* enough so that they will be legible when the graph is reduced to the column width of the magazine to which you plan to send your article, or of any others to which you *may* want to send it if it is rejected by the first. Remember that rejection by one publication does not mean that your article is worthless. If it comes back once—or twice or more times—go over it again to see if you have made it as clear, brief, and well written (grammatical construction, simplicity, directness, arrangement of material, punctuation, etc.) and well illustrated as you can. If not, *rewrite* it and perhaps *make new pictures*.

Never (or very rarely, and then only of the simplest description) put any *words* on the actual drawing, but use only index figures or letters (see CLIN. MED., May, 1942, page 129. Note, however, that this is a *special* type of full-page drawing, where legends properly go on the sheet with the sketches), which will refer to the descriptive *legend* that will go below your picture, but should ordinarily, be *typed* at the *end* of your *manuscript* (not on the sheet with the graph or drawing), identifying each legend (if there are several) as "Fig. 1," "Chart I," or "Graph I." (In CLINICAL MEDICINE we use Arabic numerals for figures, such as photographs, drawings, etc., and Roman numerals for charts, graphs, and tables). *All* manuscript typing should be done with *double spacing*.

Photographs

Every active and progressive clinician should have a *camera*, good enough to take clear, sharp pictures, and some arrangement for producing artificial light (flood lamps or flash bulbs), in order to make and keep *objective records* of the progress of all cases that show visible lesions, which can also be used to illustrate articles. If one can afford the more elaborate equipment for photographing the accessible orifices through speculums, so much the better, but a camera costing about $25.00 will serve most purposes.

First be sure that the condition to be recorded or the apparatus to be shown can actually be photographed so as to bring out the essential points *clearly*; then pose the patient or object and arrange the lighting so as to accomplish this essential purpose. (See CLIN. MED., Sept., 1942, p. 255, and Mar., 1943, p. 000). These matters constitute an art that has to be *learned*. If you do not care to spend the time and effort necessary to learn it, or if you have few cases where such records would be of value, it may be better and cheaper to have your pictures made by a professional photographer, *under your supervision*. *Photomicrographs* require special apparatus and technic, and must be especially sharp (see CLIN. MED., Sept., 1942, p. 260).

For halftone reproduction, the prints should be made on *glossy* paper, in *black and white*, and should show the

pertinent details sharply. Clear, well-made pictures, from 3¼x4¼ to 8x10 inches, can be reproduced satisfactorily.

If *roentgenograms* are to be used as illustrations, the special details in question must be *clearly obvious* (see CLIN. MED., Apr., 1942, pp. 106 & 107), which may, perhaps, require a slightly longer exposure of the film. *Never* send the film itself with an article, but have a clear, black and white *print* made from it. If it is a large one (14x17 inches, it is better, if possible, to have a print of *reduced size* (5x7 or 8x10 inches) made. A roentgenogram that is slightly fuzzy or indistinct is worse than useless as an *illustration*, though it may be all right for diagnosis.

Drawings

For most illustrative purposes, well considered *line drawings* and diagrams have the greatest teaching value, especially in showing the details of surgical technics, the construction and manipulation of apparatus, and the like, and one does not have to be a trained artist to produce acceptable pictures of this type (See CLIN. MED., Apr., 1942, p. 102; Aug., 1942, pp. 220-221; Nov., 1942, pp. 328-329). Any text of anatomy will show the *outlines* of any body part that is to be included in such a drawing, and that is all that is needed for this purpose. Details of technics, lesions, etc., can readily be filled in freehand.

Those who are not expert at this type of work will do well to begin by making the drawing with a pencil on ordinary paper, so that they can erase and alter it ad lib, until they have the picture just the way they want it, putting in *everything* that is to be in the final drawing. It can then be *transferred* to the permanent sheet by placing a sheet of carbon paper between that and the work sheet and tracing all lines with a hard pencil or blunt bone stylus.

Since few people except trained artists can draw acceptable circles or curves—or even straight lines—freehand, and even they may not know all about technical illustrations, some elementary suggestions may be in order.

A minimum amount of *equipment* (the cost of which is small) is required for making illustrative drawings. One must have a good, 12- or 15-inch, hardwood *ruler*, graduated to 1/16 inch and with one metal edge (cost, 25c to 50c); a transparent, plastic draftsman's *square*, preferably with one right angle and the other of 60 degrees, and with the long limb about 8 inches in length (50c to 75c); a *compass*, one leg of which will hold either a pencil or a *pen* (20c to 50c), or, preferably, a draftsman's rightline-pen compass (about $1.50); a draftsman's tool, of plastic, called "French Curves" (useful, but not essential for those who have had some training in drawing (cost, 50c to 75c); a comfortable, sturdy *penholder* and several *steel pens*, of varying degrees of flexibility (possibly including a crowquill, and also a fine camel's-hair brush, for inking in); a bottle of *Higgins' waterproof black ink;* and two or three *drawing pencils*, from hard to medium-soft; also two or three good *erasers*, of various sizes.

All the previous suggestions about *borders, index figures*, and legends apply to *drawings*, as well as to graphs.

For the *working* drawing almost any kind of paper will do, but a 13-pound bond paper of *standard letter size* (8½-x11 inches) is best, as it is tough and reasonably thin, so that it can be used in tracing outlines from books, etc. For the *final* drawing, use 20-pound bond paper of standard letter size (*not* artists' drawing paper), and you can then transfer directly from the work sheet, without alteration. After the carbon paper transfer has been made, all lines should be *traced over* with the India ink. If several sketches are to be used, it saves expense if two or three are combined on one sheet (with proper identifying indexes), so that they can be reproduced on one cut. (See CLIN. MED., May, 1942, page 148).

All this work should be done *neatly*, using the ruler or the square or both for all straight lines and angles; the compass for all circles; and the "French Curves" for all other curved lines except very short ones (it will meet almost every need in this work). Let your conscience and your experience of looking at good and bad drawings be your guide as to the use of hatching (fine diagonal lines), stippling (dots or fine irregular, crinkly lines), or inking in (making an entire area black), which latter is best done with a fine camel's-hair brush. If you are proud of it when it is finished, put your initials *(small)* in the lower, right corner.

All pictures should be mailed flat, with protecting boards on both sides, as folding makes reproduction difficult.

Those who will follow these brief suggestions seriously will soon find that they are accumulating valuable records; are becoming craftsmanly draftsmen; and that their articles will be eagerly welcomed by medical editors.

307 Washington St.

A LIVING FOR THE DOCTOR

THE BUSINESS OF MEDICINE AND THE ART OF LIVING

Making Practice Interesting

ONE OF the saddest spectacles in life is that of a man plugging dismally along in his occupation. Every day, he confronts the same dull routine, and every day he "dreads" it or is bored stiff by it.

It is easy to see how the workman, who spends eight hours a day stamping out the same type of parts on the same machine in the same old manner, can think his work dull. The physician, however, who sees all types of persons under all sorts of conditions, in the office, home, and hospital; who has stimulating books and journals to shed new light on his problems; and who realizes new possibilities in diagnosis and treatment for greater help to his patient, should be the last person to find his occupation a dull routine.

It has been suggested that a person who doesn't like his work should change it. A simpler, more practical method is to examine your work more closely and find enjoyment in what you are doing.

In the first place, forget the expressions "country practice" and "small-town" practice." People get just as sick on farms and in small towns, and from the same causes, as they do in cities of a million or more. Conversely, because you practice in a metropolis, don't smugly assure yourself that your standard of medical care must be higher than that of a physician in a smaller town.

If you feel that you are competent to carry out a more complicated diagnostic procedure than is commonly used in your territory, study it well and perform it whenever it is actually needed. It is astonishing how often patients will agree to thorough x-ray examination, for example, if the physician has the necessary equipment at hand and if he goes ahead caring for the patient as he would be cared for. Patients, at least the great majority of them, do not like to leave home, and consult clinics or specialists only because they feel that their home-town physician has not studied them thoroughly or persistently enough.

In small towns, one can readily follow the course of a patient, who has comparatively few physicians to choose from, and is more likely to stay with you until you have been given a sufficient trial. The patient likes the feeling that he is being given the latest and best in medical care; he *knows* if you go away for postgraduate study every year (study trips bring back the glamour to medicine, too).

In the second place, remember that *any* patient is interesting if you will but think him over. That woman of 40 who complains of diarrhea, for example: Should she be dismissed with a prescription for bismuth or kaolin, or would it be more interesting to *make a diagnosis*? Does she mean by "diarrhea" the frequent emission of mucus from a rectal carcinoma?

Get up from your chair, slip on a glove, and *examine her rectum*. (It might be an axiom to say that the man who continually sits at the desk misses ten diagnoses for every one he makes). If you don't have a sigmoidoscope, *buy one*. It costs no more than four golf clubs or a gadget for your car. Practice becomes more interesting when you *actually examine living tissues*.

Do not expect to find something every time you look. The fisherman doesn't hope for a fish every time he casts.

When a patient complains of pain in the back or shoulder, do you employ analgesic tablets, or do you get a few lines of history (where the pain is located, how it began, what makes it better or worse) and examine to rule out deep-

er trouble? One or two simple Novocain injections will cure 85 percent of muscular and joint pains.

In "atypical" cases, do you follow through to make sure that another diagnosis could not be made? Many interesting conditions can thus be found. A husky man of 31 had an atypical bronchopneumonia, which responded promptly to sulfathiazole. An x-ray film of his chest, taken two days later, showed a few patchy areas of pneumonia and *many areas of fibrosis*. A famous clinic refused to concur in the diagnosis of *silicosis* until the patient remembered, several weeks later, that he had been exposed to dust while shoveling gravel during two summers.

Look over your patient's records several days after you have first made a provisional diagnosis. New possibilities will often come to mind, and you will wonder how you could have overlooked them.

Make up a "batting average" at the end of the year and see how many times your diagnosis and treatment were the best that you could have given, under your circumstances.

The practice of medicine is a *game*, with far more combinations than those with which we amuse ourselves. If you put half as much time and effort into it, as you do in playing bridge or golf, you will find it a *fascinating* game, and one you will be well paid for playing.

R.L.G.

Clinical Guessing Versus Diagnosis

IN an endeavor to plant certain truths in the medical student's mind, it has been a custom to teach certain brief statements: "Pleurisy is most often of tuberculous origin." "The most common causes of weight loss are diabetes, hyperthyroidism, a malignant growth, and tuberculosis." "Hemoptysis should be considered of tuberculous origin until proved otherwise."

These aphorisms are valuable because they summarize *part* of a clinical problem in an easily-remembered style, and can be applied readily as a *starting point* for diagnostic study. They should *not* be relied upon in making a final diagnosis, because (1) many of these statements have proved to be true far less often than older physicians realized, and (2) they tend to make one forget other possibilities.

The diagnosis by exclusion, formerly so much in vogue, is unfair to the patient and the physician. Just because a condition causes a certain symptom in from 75 to 90 percent of the cases, is no reason for mislabeling a number of patients in whom the cause of the symptom is not the usual one.

Diagnosis must be based on *facts*. The man who has lost a little weight and has a positive tuberculin skin test has *not* been proved to have active tuberculosis unless the roentgram shows a lesion in the lung, tubercle bacilli are found in the sputum, or evidences of tuberculosis are found in the kidneys or bones.

Certain of these statements can be shown to be wrong, in your own practice, if you wish. Asthmatic patients may have tuberculosis; eczema is not always caused by an allergic process; and a non-healing sore is not always due to diabetes.

When you write down a diagnosis, why not jot down a few positive notes concerning *facts*? R.L.G.

Keep Medicine Free

THE basic tenet of American medicine has been that where there was disease a life was the issue. It mattered not whether prince or pauper was involved. If we are to make progress, this principle must be preserved and sanctified. The whole of men's concepts are in flux. This basic tenet may be lost or sacrificed unless we make a task of preserving it. This is the first part of an essential wartime task of the medical profession. It in no way militates against or in any way detracts from our contribution toward winning the war. It is of the most vital importance if we are to preserve the form and pattern of medical practice and the independence of the profession. — JOHN M. PRATT, Exec. Admr., N.P.C., in *N.E.J. of M.*, July 30, 1942.

I can assure you that I continue to enjoy CLINICAL MEDICINE, and look forward eagerly to each monthly edition—C.E.K., M.D., Canada.

THE SEMINAR

Readers are invited to submit problems to the Seminar and take part in the discussions, which should reach this office by the 10th of the month following the appearance of the problem. Send problems and discussions to THE SEMINAR, CLINICAL MEDICINE, Waukegan, Ill.

Problem No. 11, 1942

Presented by James Burnet, M.S., M.D., Edinburgh, Scotland

(See CLIN. MED., Dec., 1942, p. 383)

RECAPITULATION: A boy of 8 years, who gulped his food, which consisted largely of potatoes and candy, had a poor appetite and was irritable and constipated, tired easily but slept badly (nocturnal terrors), had an irritating cough, night sweats, and sudden attacks of fainting. He had lost ten pounds of weight in a year.

Examination: He was pale, sallow, and thin, with rings under his eyes. The only abnormalities found by a thorough examination (including a roentgram of the chest and a tuberculin test) were: Congestion of the pharynx, a slight decrease in hemoglobin, and some mucus in the stools.

Requirements: State your tentative diagnosis and what further studies you would have made. Outline the treatment.

Discussion by Dr. W. B. Palmer, Furman, Ala.

Examination of this boy of eight years showed seeming absence of diseases of the vital organs. No reference is made to a Wassermann test. Some abnormal condition is sapping the patient's vital resources. The boy seems to have colitis, which may be a result or a cause. A *nutritional deficiency state* seems to predominate, for he eats largely of candy and potatoes.

A deficiency state can be induced by an insufficient intake of food, both as to quality and quantity, which may result from many causes, such as poverty, niggardliness, or some form of neuroticism. Among the last class are found patients who are unhappily married or are allergic to certain foods, etc. Some cases are caused by too-rigid restriction of diet when treating many diseases, such as diabetes, or even hypertension. Another cause (not present in this case) is the excessive drinking of whiskey (which is equivalent to eating large quantities of sugar) to the exclusion of other essential foods. Sugar and whiskey furnish energy.

Another cause of a deficiency state may be faulty assimilation of the food by the body, even though the quality and quantity be sufficient, due to diseases of the gastro-intestinal tract, liver, or pancreas.

A third cause is excessive loss of vital elements, such as occurs in chronic diarrheas or bleeding from cancers of the gastro-intestinal or genito-urinary organs. Pellagroid skin lesions frequently follow cancer of the uterus. All of these conditions exist in the North as well as the South.

If this patient falls within my description, then it is wise to *avoid purgatives*. Many so-called latent cases of pellagra are discovered by giving purgatives, which may cause violent diarrheas, thus showing that the intestinal tract, as well as the skin, is ready for insult.

A starch and candy diet, such as this patient followed to the exclusion of vitamin B, may cause pyruvic acid poisoning.

The chief treatment indicated seems to be a careful study and intelligent revision of this boy's diet and way of life.

Discussion by L. E. Williams, M.D., Kansas City, Mo.

In dealing with neurotic children it is often of value to know something of the family background. Is there a history of epilepsy in this family? Is the child a victim of over-solicitude, as a result of being the only child? Is his irritability a manifestation of disease or a defense mechanism? Does he gulp his food because of poor training, or is he hungry? Is the appetite poor because he is permitted to eat a large amount of candy between meals, thereby spoiling his

appetite for food? If we could answer these questions, we still would have to account for his fondness for carbohydrates, which he receives in the form of potatoes. Although his diet is evidently not a balanced one, I do not feel that avitaminosis can account for all of his symptoms.

The rings under his eyes are probably due to insufficient rest, and the constipation to an insufficient residue in his food. The negative x-ray findings and the negative tuberculin reaction, I feel, are sufficient to exclude tuberculosis. The sweating is probably not due to pyrexia, but to improper or insufficient oxygenation, caused by the spasmodic attacks.

The nocturnal attacks suggests spasmodic croup or *laryngismus stridulus*, but the crowing sound is absent, also the expulsion of mucus. Moreover, in this condition, the health of the child is apparently not affected. The symptoms of this case are not characteristic of *tetany*, which must be considered. The absence of a low blood calcium would be against it.

While the child's fondness for carbohydrates may or may not have any significance, it deserves serious consideration because it is known that *hypoglycemia* may cause fainting and convulsions. Then, too, in this case the spasmodic attacks occur more frequently at night, when the carbohydrate reserve is more likely to be low. Hypoglycemia or hyperinsulism should be confirmed or disproved by a blood sugar determination of a specimen taken at the time of the attack.

Although, from the history and symptoms of this case, it would seem that we are dealing with a condition of petit mal, the epileptic is usually well nourished and a chronic cough is not a characteristic accompaniment. Epilepsy can not be ruled out without further study. *Adenoids* and *worms* may cause the same symptoms.

The pharynx was congested (irritated by the dropping of mucus from the epipharynx), and may account for the chronic cough. The adenoids, if enlarged, may be palpated by introducing the finger through the mouth into the epipharynx. If adenoid vegetations are found, they should be removed, and the tonsils also, even if not enlarged. A vermifuge would settle the question of worms.

Discussion by George B. Lake, M.D., Waukegan, Ill.

One's first thought, in a case like this, would be tuberculosis, especially if the mother's *suspicion* that the boy had evening fever had been confirmed, but the negative tuberculin test and roentgram practically rule this out, leaving the picture of an undisciplined child, whose parents have permitted him to eat and do just as he pleased, and have otherwise mismanaged him until he is in a bad way.

The first step should be some stringent "adult education," applied to the *parents*, especially the mother, who is definitely to blame for her son's condition and should be *told so*, bluntly.

The boy's whole way of life, especially his diet, should be planned intelligently and supervised constantly until he becomes adjusted to the new ways of eating, sleeping, and playing. Beyond this, he should need little except an assimilable iron preparation. The *mother* should be checked at frequent intervals.

Discussion by James A. Dungan, M.D. Greeley, Colorado

In the case presented here the pharynx of this lad of eight years is said to be congested. While two organs of special sense—ears and nose—are reported to be normal, I have seen most, if not all, of the symptoms recorded in certain cases of enlarged and pus-producing tonsils directly traceable to such glandular involvements. Septic matter seeping into the system could account for the irritability, easy fatigue, night-sweats, disturbed sleep, capricious and variable appetite, sudden pallor and fainting, loss of weight and evening fever, rings under the eyes, sallow skin, constipation, increased pulse rate, gulping the food, reduced hemoglobin, and even mucus in the stools.

Also, the lowly *ascaris lumbricoides* could be a logical explanation of a good many of the disease manifestations recorded. The surest sign of such an infestation—the appearance of the worms in the stools—is not in evidence, yet on suspicion one would be justified in making a blood test for eosinophilia and even administering sufficient doses of santonin.

Chlorosis, in the absence of other demonstrable pathology, could be held responsible for the following: easy fatigue, giddiness and faintness, constipation, reduction of hemoglobin, and the variable and capricious appetite.

Solution by Dr. Burnet*

In a case of this kind, presenting the symptoms of cough, night sweats, and loss of weight, the first thought is of tuberculosis. The congested pharynx accounts for the cough.

*Adopted from *Med. World* (London).

The other symptoms are due to *chronic intestinal indigestion*, the result of eating too much carbohydrate foods. "Carbohydrate dyspepsia" is a synonym.

Treatment: Allow no bread, cake, milk puddings, potatoes, candy, or chocolate. The patient may have toasted bread (one slice with each meal), eggs (if they agree), boiled ham, broiled or well fried bacon, beef or mutton (not fried or stewed), chicken, clear soups, oranges, and low-carbohydrate vegetables (lettuce, tomatoes, carrots, etc.).

Compound licorice powder is an efficient laxative. Do not use mineral oil. The teeth should be attended to.

The child should be out in the fresh air for several hours, or more, each day. If he cannot relax while attending school, have him taken out for a time. Regular hours of sleep should be secured.

Problem No. 2, 1943 (Medical)

Presented by L. E. Williams, M.D., Kansas City, Mo.

July 21, 1942, a Negro man, a stone mason's assistant, age 57, was admitted to General Hospital No. 2, Kansas City, Mo., complaining of a "weak kidney." He had a stricture of the posterior urethra and, after treatment with bougies and sounds was discharged July 31, in good condition, free of all urinary symptoms. At this time he had hypertension and his heart was enlarged, but no murmurs were present.

He was readmitted September 26, 1942, complaining that, for three weeks prior to his admission, he had been suffering with severe pain in his back, in the region of his kidneys, and for two weeks it had been so severe that he was unable to walk erect. The pain was most acute at the costo-vertebral angles, in the region of the first and second lumbar vertebrae, and radiated down the back. He micturated twice at night. There was no urgency or dysuria, but he voides only a small amount at a time. He did not use tobacco or whiskey; admitted measles, mumps, whooping cough, and gonorrhoea; but denied knowledge of a chancre.

Physical examination: His nose and ears were negative and his mouth in poor hygienic condition. There were no rales in the chest. The heart rate was rapid, but of a normal rhythm. A diastolic murmur was heard best at the apex: Blood pressure, 136/88; temperature, 99° F.; pulse, 112.

Two days after admission he had a mild attack of epistaxis, which ceased spontaneously. There were marked pain and tenderness at both costovertebral angles; the knee jerk was exaggerated; the rectal sphincter was spastic and the rectum filled with feces; the prostate was tender, but not enlarged.

Laboratory findings: Urine—specific gravity, 1.025; albumin 2-plus; pus cells; finely granular cast. Red *blood cells*, 3,060,000; leukocytes, 22,000: hemoglobin, 9 Gm. (58%); juveniles, 4%; segmenters, 56%; lumphocytes, 40%. *Blood chemistry:* Sugar 105 mg. percent; nonprotein nitrogen, 26; creatine, 1.3. *Spinal fluid:* Sugar 64 mg.; globulin, 2-plus; chlorides, 709 mg.; cell count, 12.5 per cubic cm. *Phenol sulphonephthalein test:* First specimen (30 minutes after administration of dye), amount voided, 120 cc.; dye excreted, 12%; second specimen, amount voided, 95 cc.; dye excreted 4%; and 90 cc. was voided in the third specimen, with 3% of dye being excreted. *Blood Kahn test*, 4 plus.

Requirements: State your tentative diagnosis and what further studies you would have made, *giving reasons*. Suggest treatment.

The large money bag represents the amount spent annually by the American public for chewing gum. Compare it with the amount available for lay education in cancer.

Am. Soc. for Control of Cancer

CLINICAL NOTES and ABSTRACTS

Microfilm copies of any of the published papers here abstracted, up to 25 pages, may be obtained for 25 cents from Microfilm Service, Army Medical Library, Washington, D.C.

Symptoms and Signs of Typhus

THE average period of incubation in typhus fever is in the neighborhood of ten days. A few cases may show an incubation period of only four days, while some cases do not develop symptoms until after the lapse of fourteen days. During the incubation period the symptoms are not significant.

One of the most characteristic features, not only of typhus fever but also of the whole group of rickettsial infections, is the *abruptness of the onset*. The disease is ushered in by a severe chill, a succession of chills, or a chilly feeling. The subjective complaints are headache (which may be intolerable), backache, and pain in the extremities. Sometimes the pain seems to be deep-seated, as though the bones were involved. Nausea and vomiting occur frequently. Epistaxis is common. The eyes are suffused. The tongue is dry, and the breath offensive.

Immediately following the chill, the temperature begins to rise, and by the third day, at the latest, reaches a level of 103° to 105° F. It remains fixed, with only minor fluctuations, for the next ten to fourteen days. Early in the disease (5th day) the patient becomes stuperous. Occasionally there are convulsive seizures, but it is the stupor that attracts attention, and it is because of the stupor that the disease acquired the name of typhus. Often there is cough, due to bronchitis. A leukocyte count usually shows from 12,000 to 15,000 corpuscles. *The lymphocytosis seen in typhoid is absent.* The fever curve, the leukocytosis, and the absence of lymphocytosis serve to differentiate the two diseases.

By the fifth day (3-7) of disease the rash makes its appearance and aids in the differentiation from typhoid. In children the rash may be mistaken for smallpox. At first it is macular and fades on pressure. Each succeeding day it becomes more intense, changing in color from reddish to purple. At this stage it no longer disappears on pressure. By the second week, distinct petechial hemorrhages appear. Sometimes there are gross cutaneous hemorrhages, followed by necrosis. These are most commonly seen where the skin is drawn tightly over bony prominences subjected to pressure — the sacrum, hips, heels, ankles, and elbows.

The rash is first observed over the chest, abdomen, and back, spreading from these points toward the periphery but rarely involving the face, wrists, hands, or feet. This is in direct contrast with the rash of Rocky Mountain spotted fever, which starts at the periphery ("stocking-glove" rash) and spreads to the trunk, with the abdomen showing the least involvement. The mucous membranes are not involved, although hemorrhage from the stomach or bowel may occur.

After from ten to fourteen days the rash fades to a brownish color, and gradually disappears. The skin never presents a local ulcer at the site of inoculation, nor do the regional glands become enlarged, as in tularemia and bubonic plague, although local ulcers occur in other types of rickettsial infection (Japanese river fever, Mediterranean spotted fever, and South African tick-bite fever). Inflammation of the scrotum occurs, but is not so common as in Rocky Mountain spotted fever.

Usually, with the appearance of the rash and the maximal development of fever on the third, fourth, fifth, or sixth day, a "typhoidal" state develops.

The acute onset, the rapid increase in temperature, the leukocytosis, the typical rash, the typhoid state, the negative blood cultures, and the absence of a pleocytosis in the spinal fluid, all serve

to differentiate typhus from typhoid fever and epidemic meningitis.

In favorable cases the temperature falls after from ten to fourteen days; the rash fades, the delirium ceases, the appetite returns, and recovery ensues. —*Therapeutic Notes, Oct., 1942.*

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The Barbiturates*

The higher parts of the nervous system are depressed by barbiturates. When used in small doses, mild sedation and sleep ensue rather promptly, the depth of the depression closely resembling that caused by alcohol. *They do not relieve pain,* and are useless for insomnia due to pain.

Hypnotic doses of the barbiturates are slightly depressant to the respiratory and cardiovascular systems, but no more so than in natural sleep. *Toxic doses result in shallow, slow respirations* and a marked drop in blood pressure. The heart is not affected directly, but the respiratory depression and peripheral vasodilatation cause heart changes secondarily. The *carotid sinus reflexes* are depressed or abolished, and this may lead to collapse.

Four hundred (400) deaths occur yearly due to suicidal use of the barbiturates. *The symptoms of overdosage* are (1) drowsiness, (2) headache, (3) mental confusion, and later (4), profound sleep or coma. The skin becomes moist and cyanotic; the lungs edematous. *Hypostatic pneumonia* occurs unless the patient is moved at regular intervals. The pulse becomes weak and rapid.

Treatment of overdosage: (1) Wash out the stomach and leave magnesium sulphate solution in it, to flush the intestines, and (2) give one or more of these stimulants, intravenously:

Caffeine sodiobenzoate, 3 grains; picrotoxin, from 3 to 10 mg.; Metrazol, 1 cc. of 10-percent solution; strychnine, from 5 to 10 mg. The patient should be kept warm; oxygen should be given.

Intravenous injections of 5-percent dextrose solution, or dextrose in saline solution, will maintain the blood volume and keep renal excretion at a high level.

Side-actions of the Barbiturates

Undesirable actions or side-actions are uncommon, appearing mainly after their continued use. Excitement, delirium, or profound sedation may occur after a small dose. Skin rashes, and edema of the lips and eyelids have occurred. When the barbiturates have been taken for months or years, a condition that closely resembles morphine addiction occurs. Omission of the drug is followed by nervous irritability, muscle tremors, and continuous ataxic movements; administration of the drug to such addicts is followed by a sense of wellbeing and relief of irritability.

The barbiturates are habit-forming; unlike morphine, they can be obtained fairly readily. *Permanent brain damage* is caused by their continued use. Kracke's work shows that "laymen will use the barbiturates as they do alcohol."

G. B. Roth, M.D.

Washington, D. C.

*Med. Ann. Dist. Col., July, 1942

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The Treatment of Painful Feet

In the treatment of painful feet, forget about "fallen arches." Carefully-taken roentgrams, in many cases of painful feet, show that the first metatarsal bone is quite short and that the weight of the body is thus thrown on the second metatarsal (formerly labeled, "falling of the transverse arch").

Rule: Assume, in general, that pain in the top and sides of the foot calls for a check on the shoe; when the pain is on the bottom or sole of the foot, the trouble is probably with the foot itself.

Take at least a dorsoplantar x-ray view of both feet in every patient. The roentgram is as important in foot disorders as blood tests or urinalyses are in their fields. Any patient who objects very seriously is not sincere in his desire to be helped and probably will not cooperate well.

Soft tissues and nerves that have been kept in a state of irritation for months or years do not become normal in a few days. The patient should rest as much as possible, preferably with the feet elevated to the hip level, or should obtain frequent brief periods of rest during the day. No activities besides those absolutely required should be permitted, corns, calluses, warts and other causes of surface irritation should be removed, and shoes should be fitted well. Late in the day, the feet should be treated with contrast plunges (soaking the feet in hot water for 4 minutes, in cold for 1 minute, and repeat the process 4 times). Other physical therapy or drugs may be added as required. After from 10 to 14 days, a "compensating insole" should be put in the shoe and worn at all times.—Dudley Morton, M.D., in *N.Y.S. J. M.*, Nov. 15, 1942.

The Diagnosis of Sterility

The first step in the study of a sterile couple is the simple microscopic examination of the sperm of the husband. In a normal specimen we should at once see innumerable spermatozoa dashing about rapidly. When we have to search for spermatozoa, the specimen is abnormal.

The first specimen may be taken in a condom or jar. If live sperm are found, the wife is instructed to come to the office as soon as possible after coitus, and of course, without taking a douche. The usual vaginal speculum is inserted and suction made on the external os with a pipette or a blunt needle on a syringe. The cervical contents are placed on a slide, covered with a coverglass, and examined. If we see living spermatozoa we know that (1) sperm reach the endocervix; (2) the vaginal and cervical secretions do not kill the sperm; and (3) we need pay no attention to the position of the uterus or cervix.

If dead spermatozoa are found, a jar specimen is then examined and, if they are dead here also, the fault lies with the husband. If no sperm are to be found in the cervix, the husband may still be at fault, even though live sperm are found in the jar or condom. If the husband is suffering from a tight urethral stricture, the semen may remain behind the stricture until the penis becomes flaccid; or he may be suffering from rapid or premature ejaculation; or (less likely) may have hypospadias or epispadias, in which case the semen is directed away from the cervix, or even from the vagina.

The syringe may be inserted to the fundus of the uterus and suction made again. If live spermatozoa are found, we know that anteflexion or retroflexion of the uterus does not prevent the spermatozoa from reaching the uterine cavity and that they can live on the endometrium.

If living spermatozoa are found in the uterus, one then blows air or gas through the cervix to determine if the fallopian tubes are open. The gas or air may be seen by a roentgram, or the pressure determined by using a manometer to show the amount of pressure needed to open the tubes.

Ovarian causes: As a rough guide, we may say that, if the woman began menstruation at the age normal for her race, if secondary sex characteristics have appeared normally, and if menstruation has been fairly regular, lasting an average number of days and the amount of blood lost was normal, the probabilities are that the ovaries are functioning normally. It must be remembered that we cannot palpate or diagnose an atrophic ovary except by exclusion; an enlarged or displaced ovary can often be palpated.

In mild cases of undeveloped uterus, the use of prolonged hot douches may help to develop it. Thyroid or pituitary extract should be given, if these glands are at fault. Cervicitis must be cured, by medical therapy or by cautery. — MAX HUHNER, M.D., in *Med. Rec.*, Nov., 1942.

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The Diagnosis and Treatment of Heart Disease*

Cardiac symptoms appear in arteriosclerosis, hypertension, congenital malformations, syphilis, and rheumatic fever, only when the myocardium begins to fail.

History: Dyspnea and palpitation appearing after exertion, especially exertion soon after meals, are typical symptoms. Slight pathologic difficult breathing is little more than the normal "shortness of breath" on unusual exertion. Greater dyspnea comes on in asthma-like attacks, chiefly at night or after exertion. Both palpitation and dyspnea may be greater with the patient lying down than when he sits up.

From congestion of individual organs may come *nocturia digestive disturbances, dull upper abdominal pain,* and slight jaundice. Pulmonary congestion may result in a *cough* and *occasional slight hemoptysis. Cardiac failure is diagnosed, not from the heart findings, but from the evidences of congestion in other organs.* There are usually coarse, moist, crepitant râles at the base of one or both lungs. The liver is usually enlarged, smooth, and tender. Later edema of the ankles appears.

Edema from myocardial failure never extends above the hydrostatic level of the heart. Fluid may appear in the pericardial, pleural, and peritoneal cavities.

Treatment: Reduce the heart's work and increase cardiac efficiency, by medication, diet, regulation of activity, and removal of fluid. Activity must be reduced until no symptoms or signs are present. Persistent edema or râles indicate that the rest must be *complete*, in *bed.*

Morphine is the most valuable drug in advanced heart disease. Phenobarbital, ¼ or ½ grain (16 or 32 mg.) three times daily, often promotes peace of mind. Digitalis should be given unless

*South Med. & Surg., July, 1942

contraindicated. If the patient has had no digitalis, 7½ grains (0.5 Gm.) are given as the first dose; 4½ grains (300 mg.) in 4 hours; then 3 grains (200 mg.) every 4 hours, until nausea appears the next day. For those who have had the drug recently or whose digitalis history is unknown, 3 grains (200 mg.) every 4 hours will be safer and will digitalize the patient in 3 or 4 days, at the longest. As a *maintenance dose*, from 1½ to 3 grains (100 to 200 mg.) daily—enough to produce mild nausea occasionally — is to be continued indefinitely.

Weigh the patient every day; increase in weight is the first sign of fluid retention, and precedes the appearance of edema by several days. If edema is present or if the weight increases, have the patient stop using salt in his food and rest as much as possible.

If edema does not promptly disappear after rest and a low-salt diet, give 15 grains of ammonium chloride or ammonium nitrate three times daily for 3 days, followed by 1cc. of Salygran intravenously. The Salygran is repeated at three day intervals until the edema subsides or the drug ceases to have a diuretic effect.

J. B. McLESTER, M.D.
Birmingham, Ala.

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Benzedrine Sulfate in Chronic Alcoholism

When a dipsomaniac stops the use of alcohol, he is severely depressed and very uncomfortable, and feels that he must *take something* to relieve him. As the only thing he knows to take is alcohol, the vicious circle continues. That is why most of these patients have been sent to institutions for treatment.

A method by which they can be managed without hospitalization, safely and in most cases satisfactorily, is by stopping the alcohol at once, and giving from 10 to 30 mg. (sometimes more may be needed, as determined by *careful clinical test)* of Benezdrine (amphetamine) Sulfate (S.K.& F.) daily, in two equal doses, one with breakfast and the other at noon.

The *individual* optimum dose should be continued until the patient is reasonably comfortable and able to work without his alcohol, and should then be gradually diminished, and finally stopped, after which an occasional dose can be taken, in periods of depression, in place of alcohol.

Benzedrine Sulfate is not a panacea in these cases, but is a valuable aid, to be used in addition to any other treatment that may be indicated. It should *not* be used in treating a "hangover" following an occasional spree. It is a potentially dangerous drug (though no evidences of addiction to it have been seen in any of the 56 patients who have taken this treatment), and should never be used except under the supervision of a physician.—W. BLOOMBERG, M.D., in *A.J. Psychiat.*, Jan., 1942.

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Postoperative Pulmonary Complications

Do not operate during epidemics of upper respiratory infections, except in emergencies. See that the patient's teeth and mouth are clean and are brushed daily, to prevent aspiration of infectious organisms. Before operating, be sure that the stomach is empty; when operating in an emergency, have a gastric lavage given.

Tonsillectomy and other mouth and throat operations should not be performed unless suction is used to prevent aspiration of blood and pus into the lungs. Tissues should be handled gently; depend on relaxation rather than forcible retraction, which traumatizes tissues with subsequent danger of thrombosis and emboli. For the same reason, avoid mass ligatures. At the end of an operation, ventilate the lungs with oxygen or a mixture of oxygen and air. Do not apply adhesive dressings tightly to the lower part of the chest or upper part of the abdomen.

If secretions in the pharynx are excessive, elevate the foot of the bed or use pharyngeal suction, and irrigate with weak saline and ephedrine solutions. As soon as the patient is awake, encourage deep breathing, in through the nose and out through the mouth, at frequent intervals. Arm and leg exercise should be started early. Avoid excessive use of sedative drugs, especially morphine. — C. EGGERS, M.D., in *N.Y.S.J.M.*, Dec. 15, 1942.

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Insulin-Resistant Diabetes

In insulin-resistant diabetes, abnormal amylase activity reduces liver glycogen and increases blood sugar. *Treatment:* A high-carbohydrate diet is given, with additional insulin to burn it. Amylase activity is thus slowed up, insulin resistance is broken, and the patient is brought under control.—S. SOSKIN, M.D.
Chicago, Ill.

The Tuberculin Test in Private Practice

The tuberculin test (preferably the intracutaneous injection of old tuberculin or purified protein derivative, but the Vollmer patch test gives good results) should be performed: (1) On all children for whom the physician is responsible for routine care, initially at the age of two or three and subsequently at two- or three-year intervals on all children who were previously negative (nothing is to be gained by repeating the test on a child who has previously had a positive reaction); (2) on all children with chronic illness; (3) on all children with an acute illness in which there is even a remote chance of tuberculous infection (it may not react while fever is present); and (4) on all siblings of children with positive tuberculin reactions, even though roentgrams are obtained. The result of the test may be a factor in the differentiation of a pulmonary lesion.—W. E. NELSON, M.D., in *Penn. M. J.*, Jan., 1943.

[Old tuberculin is furnished by many state departments of health without charge. Purified Protein Derivative is marketed by Parke, Davis and Company. Lederle Laboratories supply the Vollmer patch tests, which are simply applied to the arm or back after cleansing the skin.—ED.]

MEDICO-MILITARY NOTES

Military Status for Physical Therapy Aides and Dietitians

Two new corps in the Medical Department of the Army of the United States have been authorized: one for physical therapy aides and the other for dietitians. Each of these corps will have a director, with relative rank of major (the superintendent of the Army Nurse Corps now has relative rank as colonel), and others will be commissioned in the relative grades of second and first lieutenant and captain. All will receive the pay and allowances of their grades. Most of the appointments will be made from those now on duty with the Medical Department in the Civil Service status.

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Care of Test Pilots

Test pilots are more likely to suffer from *chronic exhaustion* than are transport pilots, because of the nature of the work of the former, who must fly long hours under the emotional strain of not knowing how the new planes will behave.

The *symptoms* of this condition are chronic fatigue, a feeling of inward tension and uneasiness, anxiety, difficulty in concentration, insomnia, irritability, headache, gastrointestinal disturbances, and an increased awareness of and preoccupation with normal bodily processes.

To minimize this trouble, these pilots should be kept in good physical condition; should have short vacations of at least one week in seven; should sleep eight hours every night; and should avoid more than two or three high-altitude flights in succession.

Hobbies, especially those quite different from the ordinary work and involving the *making of something* or gathering collections of some sort, are of great value. Sedatives and cerebral stimulants should be taken only under the direction of a physician.—DRS. J. H. TILLISCH, and M. N. WALSH, in *War Medicine*, Dec. 4, 1942.

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War Wounds

War wounds should be treated, within six hours after they are received, with thorough soap and water cleansing; adequate debridement; primo-secondary or no suturing; sulfonamides, locally and internally; adequate dressings; blood or plasma infusions for shock and infection; careful redressings, as required; and no secondary incisions except for localization. — J. J. MOORHEAD, M. D., in *A. J. Surg.*, 56:338, 1942.

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Medical Quotas 95 Percent Filled

The Procurement and Assignment Service has announced that 95 percent of the 1942 quota of medical officers for the armed forces was filled. Some states have furnished more than their proportionate number, and some less, and it is from these latter that the physicians needed this year should come.—*J.A.M.A.*, Oct. 31, 1942.

DIAGNOSTIC POINTERS

Riboflavin Deficiency

• The earliest sign of riboflavin (vitamin B_2) deficiency is the appearance of linear fissures at the angles of the mouth. In severe cases, the cornea becomes inflamed and vascularized.—*Am. J. Dig. Dis.*, Oct., 1942.

Repeated Abortions

• *Three* successive abortions or stillbirths are required to prove that chance alone is not the cause of the miscarriages. After one abortion, 78 percent will not repeat; after two, 62 percent will not repeat; after the third, 27 percent will not repeat; after four abortions, only 6 percent will not repeat. Pathologic study has shown that most of the ova passed at the time of miscarriages are pathologic. — ROBERT N. RUTERFORD, M.D., in *West. J. Surg., Ob. & Gyn.*, Nov. 1941.

Trouble After Tonsillectomy

• If recurrent infections of the tonsil bed occur after a tonsillectomy, suspect and look for a *bronchial cleft cyst*, draining through the tonsillar fossa. These anomalies are not uncommon.—ROBIN HARRIS, M.D., in *Laryngoscope*, July, 1942.

Objective Diagnosis of Allergy

• Nasal polyps and pale, swollen turbinates are significant of nasal allergy. Musical and siblant rales may persist for weeks, or permanently, in the chests of asthmatic patients. Chronic, recurrent asthma may be suspected if the chest is expanded antero-posteriorly ("barrel chest"), if the expansion is poor, and if kyphosis is present. The chest roentgram shows such changes, and also the decreased density of the lungs. Other evidences of a past or chronic asthma, such as low fixation of the diaphragm, pulmonary fibrosis, and relative emphysema may also be seen in the film. An eosinophil count of more than 4 percent is strongly suggestive of allergy, if no parasitic infestation is present.—R. W. HYDE, M.D., in *New Eng. J. Med.*, Aug. 13, 1942.

Insulin Overdosage

• The common early symptoms of insulin overdosage are (1) hunger, (2) nervousness, (3) blurred vision, (4) want of concentration, (5) confusion, and (6) sweating. Less common are vomiting, double vision, numbness of the finger tips, and numbness of the lips and tongue. Tremulousness, weakness, and confusion before breakfast appear. — *Med. World* (Lond.), Aug. 28, 1942.

Drugs and Mental Disease

• Among 115,845 patients admitted to Massachusetts mental hospitals, the annual rate of those admitted for psychoses due to the use of drugs was 0.7 percent. Alcoholics made up 42.5 percent of all admissions and 65.4 percent of readmissions. The recovery rate in these cases is high and the death rate low. —MERRILL MOORE, M.D., *et al*, in *Confinia Neurol.*, Vol. 4 (1941).

Hypothyroidism and Dyspepsia

• Atrophic gastritis is often associated with hypothyroidism. Such masked hypothyroidism may cause anorexia, flatulence (especially after meals), constipation, occasional nausea, hypoacidity with abdominal pains, and anemia.—F. C. GOLDING, M.D., in *Ann. Int. Med.*, Dec., 1942.

Hypermetabolism

• Hypermetabolism is not the same as hyperthyroidism, and may exist without organic disease. Basal metabolism tests must be *accurate*. — J. WILLIAM HINTON, M.D., before I.P.M.A., Oct., 1942.

Anorectal Abscess

• A small abscess near the rectum or anus should be diagnosed early and incised. These abscesses "point" through the tough skin late, and only after they have extended through much healthy tissue. In the presence of anal pain or soreness without definite swelling, tender to touch or on sitting, not aggravated by defecation but somewhat relieved when the bowels are evacuated, one must suspect an early abscess. The patient must always be told that an anorectal abscess usually leads to a fistula-in-ano. — F. G. RUNYON, M.D., in *Med. World*, Sept., 1942.

THUMBNAIL THERAPEUTICS

Vitamin K for Babies

• Vitamin K may be given by rubbing it into the skin of newborn babies. Four drops (0.2 cc.) of liquid petrolatum, containing 1 mg. of vitamin K, should be applied to every infant's skin, as a preventive measure against hemorrhagic disease of the newborn.—H. VOLLMER, M.D., in *Minn. Med*, Nov., 1942.

Dizziness Following Head Injuries

• The vertigo experienced following head injuries may be relieved by injections of Prostigmine, 1 cc. of the 1:2000 solution twice weekly, and oral administration of a 15 mg. tablet of Prostigmine bromide three times daily. —J. Y. MALONE, M.D., in *J.A.M.A.*, July 11, 1942.

Foreign Protein Reactions in the Tropics

• People living in the tropics are more susceptible to foreign protein reactions, and these allergic manifestations are more severe than they are in cool or temperate countries.—DR. CLARENCE A. MILLS, of Cincinnati; reported in *Science News Letter*, Feb. 6, 1943.

Hydrochloric Acid

• Patients who are taking hydrochloric acid for achlorhydria should be cautioned to use a glass drinking tube, to avoid losing calcium from the enamel of their teeth. — B. SARNAT, M.D., in *J.A.M.A.*, Dec. 12, 1942.

Suppression of Lactation With Stilbestrol

• The use of stilbestrol, before painful engorgment of the breasts has begun, will prevent lactation. Dose: 5 to 15 mg. daily for the first 4 postpartal days. — C. COLLINS, M.D., in *Tri-State Med. J.*, Nov., 1942.

Gallbladder Distress

• The sphincter of Oddi can be relaxed by (1) ingestion of a fatty meal; (2) inhalation of amyl nitrite or placing 1/100 grain (0.65 mg.) of nitroglycerin on the tongue; or (3) taking magnesium sulphate by mouth. — *South. Med. & Surg.*, June, 1942.

Sulfaguanidine in Bacillary Dysentery

• The prompt and sufficient use of sulfaguanidine not only reduces the severity but shortens the clinical manifestations of the disease and brings the communicable period to an end earlier than is the case among similar, but untreated, patients. There is less chance for the development of a peristent carrier state. —HAVEN EMERSON, M.D., in *South. Med. J., Jan.*, 1943.

Belladonna

• Belladonna is the digitalis of the gastrointestinal tract.—ABRAHAM H. AARON, M.D., Buffalo, N. Y., before I.P.M.A., Oct., 1942.

Herpetic Conjunctivitis

•A cotton applicator soaked in ether is rubbed on the herpetic lesions on the cornea after local anesthesia has been established by Metycaine or Pontocaine. Following the treatment, a few drops of 1-percent atropine solution and an antiseptic ointment are applied to the eye and a bandage applied. Rapid healing follows without pain or chemosis. —*E.E.N.T.M.*, Oct., 1942.

Vaginal Antiseptics During Labor

• The use of vaginal antiseptics during labor and preceding each vaginal examination and vaginal manipulation has resulted in a perfect record: 11,000 deliveries without a death from infection. Watery solutions, *not* tinctures, should be used. Either mercurochrome in aqueous solution or a 1-percent solution of acriflavin in glycerin may be instilled into the vagina with a sterile syringe every 4 hours.—H. W. MAYES, M.D., in *West. Surg., Ob. & Gyn.*, Nov., 1942.

NEW BOOKS

Any book reviewed in these columns will be procured for our readers if the order, addressed to CLINICAL MEDICINE, Waukegan, Ill., is accompanied by a check for the published price of the book.

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CONTRACEPTION AND STERILITY

Beebe

CONTRACEPTION AND FERTILITY IN THE SOUTHERN APPALACHIANS. *By* GILBERT WHEELER BEEBE, Ph.D., *Former Statistician, National Committee on Maternal Health; Research Associate, Milbank Memorial Fund. Published for the National Committee on Maternal Health, Inc., by The Williams and Wilkins Company of Baltimore. 1942. Price, $2.50.*

This monograph embodies the studies of 1,300 families in Logan County, West Virginia. Not only the contraceptive, but the social, economic, and cultural aspects are included. Complete histories, including the age at first marriage (which was found to be, on an average, 2 years below that for the country as a whole), frequency of coitus (averaged twice weekly, as is true for the country), and sufficient data to delineate patterns of reproduction, were obtained.

To those who are interested in the study of human beings and all the factors that effect birth control, this report is well worth reading.

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ELEMENTARY PHILOSOPHY

Hall

FIRST PRINCIPLES OF PHILOSOPHY: Direction of Mental Activity in the Science of Perfection. *By* MANLY PALMER HALL. *Second Enlarged Edition; Ten Illustrations. Los Angeles, Calif.: Philosophical Research Society, Inc. 1942. Price, $2.00.*

Adversity cannot be successfully faced by an individual who lacks a philosophy that really offers a reason for living; and such a philosophy is now available to those who are willing to put forth reasonable effort to learn and use it.

The first step in the organization of thought is to reduce the complexity of knowledge to a relatively simple program, and then *follow* it. In this book, the author has selected, from the vast philosophical literature, a few *basic principles* which, once grasped, will enable one to live with a fair measure of true intelligence.

Here are set forth, in simple, inspiring words, the elements of the seven branches of philosophy: Metaphysics (the science of the invisible universe, as physics is the science of the visible); Logic; Ethics; Psychology; Epistemology (the study of the nature of knowledge); Esthetics; and Theurgy (the living of wisdom). There is also an appendix of some 40 pages, of fascinating information and ancient allegories.

The teachings here presented will be intelligible to any true literate person, but it is not a book for superficial dabblers. The thoughtful and sincere reader, who will study these pages and make use of these ideas, will be on the way to a higher and finer life than he has even imagined, hitherto.

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FRACTURES

Magnuson

FRACTURES. *By* PAUL B. MAGNUSON, M.D., *Associate Professor of Surgery, Northwestern University Medical School, Chicago. 317 illustrations. Fourth Edition, revised. Philadelphia, London, Montreal: J. B. Lippincott Company. November, 1942. Price, $5.50.*

This fourth edition is as practical, as clearly written, and as definite as were its predecessors. The author has the gift of explaining, in an interesting style, the best method of handling fractures of various parts of the body. No long discussions are entered into, as the book is planned for the man who must take care of fractures under the poor conditions of war or of road accidents. Photographs and sketches show the proper technic of reducing and retaining the broken bones.

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GYNECOLOGY FOR PRACTITIONERS

Cooke

ESSENTIALS OF GYNECOLOGY. *By* WILLARD R. COOKE, M.D., F.A.C.S., *Professor of Obstetrics and Gynecology, University of Texas; with 197 illustrations, including 10 in color. Philadelphia: J. B. Lippincott Co. 1943. Price, $6.50.*

Here is a real, practical text on gynecology for the general clinician and family doctor—not an exhaustive treatise for the specialist. Dr. Cooke does not try to supplant the texts on anatomy, embryology, and physiology, but includes all that is practically pertinent to the subject in 57 pages; then come brief and helpful chapters on *the patient* herself, and on history taking.

In a pleasing and readable style—all fresh stuff, as used by a keen teacher—he sets forth the things that the general practitioner needs to know in order to *make a diagnosis;* treat the non-surgical disorders; prepare a patient for operation; perform the simpler operations himself; and realize when to call in a specialist.

The pictures are all *teaching* illustrations—almost all original, including many illuminating line drawings—which tell a clear, practical story. The paper, typography, and general bookwork make a handsome volume of convenient size.

In its field, this is the best book we have seen, and no general clinician can afford to deny himself the *real help* it will give him in his daily work.

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OTHER BOOKS RECEIVED

With Brief Descriptions

THE NATIONAL FORMULARY, Seventh Edition (N.F. VII). *Prepared by the Committee of the N. F. of the American Pharmaceutical Assn. Official from Nov. 1, 1942. Washington, D. C.: American Pharmaceutical Assn. 1942.*

This companion book to the Pharmacopeia is too well known to need extensive description. It is indispensable to pharmacists and to doctors who prescribe.

MENTAL ILLNESS: A Guide for the Family. *By* EDITH M. STERN, *with the collaboration of* SAMUEL W. HAMILTON, M.D. *New York: The Commonwealth Fund. 1942. Price, $1.00.*

A valuable book for any family in which mental disease occurs. Tells little-known facts clearly and simply.

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9 Elixir Bromaurate in the Treatment of Whooping Cough and other Persistent Coughs. *Pamphlet.*

19 Menstrual Regulation by Symptomatic Treatment. *Pamphlet.*

20 Hyperol. A Utero-Ovarian Tonic and Corrective. *Pamphlet.*

21 Gray's Compound. *Circular.*

33 Foot Weakness and Correction for the Physician. *Illustrated booklet.*

91 Adrenal Cortex; for the Treatment of Addison's Disease and Asthenia. *Folder.*

100 Neo-Plasmoid. The Modern Solution for the Injection Treatment of Hernia. Hernia technics. *Illustrated pamphlet.*

173 Apestrin in Utero-ovarian Insufficiencies. *Circular.*

185 Lydin — Biologically Standardized Male Sex Hormone. *Circular.*

191 Vita-Kaps Improved. Concentrate of Vitamins. *Folder.*

207 Terra Sigilatta; the Story of Kaomagma. *Illustrated Pamphlet.*

211 Proluton and Pranone-(pure corpus luteum hormone and orally effective progestin, respectively) for use in threatening and habitual abortion, functional dysmenorrhea and premenstrual tension. *Folders.*

212 Vitamin B Complex Syrup and Elixir. *Circular.*

221 Basic Data on Pollens and Spores. *Illustrated pamphlet.*

222 Clinical Application of Argyrol. *Illustrated pamphlet.*

223 Potent Female Sex Hormone. Progynon-DH Tablets. *Folder.*

225 Schering Handbook. *Catalog of preparations.*

226 Estrogenic Hormone Therapy; Survey of latest reports. *Pamphlet.*

228 Liver and Iron Therapy. *Booklet.*

229 Brief Facts for Physicians. *Folder.*

232 The Majesty of Sleep. *Booklet.*

233 Anorexia and Constipation. *Folder.*

234 The Therapeutic Review. *Booklet.*

242 Abstracts on Sulfadiazine. *Booklet.*

246 Cedilanid — The Key to the failing heart. *Folder.*

248 Sperm—Diagnosis and Treatment of Sperm Disorders. *Illustrated Booklet.*

250 The Pituitary Gland. *Illustrated Book.*

251 B Natural—Vitamin B Complex Powder. *Folder.*

252 Graphic Evaluation of Oral Vaccination in Prophylaxis of Common Cold. *Illustrated Booklet.*

253 Stilbestrol. *Pamphlet.*

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